BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of Work: Detailed Estimate for the work of Construction of RO plant and providing water supply in ward No- 02 of yelahanka sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Estimate Cost Rs.								**2500000.00**
	A) CIVIL WORK								
1	KSRB 2-1.1: Earth work in surface excavation in hard soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe line and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications, Specification No KBS 2.1(a) / 2.3.1,P. No. 5/ Item No. 2.2/ PWD SR 2015-16	cum							
	levelling and lowering		1	10.00	4.00	0.40	16.00		
							16.00	219.42	3511.00
	Basic Rate	207.00							
	Area Weightage @ 6%	12.42							
	Total	**219.42**							
2	KSRB 2-2.2 : Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5m , in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m. specification, specification No. KBS 2.1(b) / 2.3.5, No. 5/ Item No. 2.4/ PWD SR 2015-16	cum							
	columns		4	1.00	1.00	1.50	6.00		
	long wall		2	7.00	0.90	1.20	15.12		
	short wall		3	3.10	0.90	1.20	10.04		
	for CLF		1	25.00	0.90	0.90	20.25		
							51.41		
	Deduction columns		4	1.00	0.90	1.20	4.32		
							47.09	**283.02**	**13329.00**
	Basic Rate	267.00							
	Area Weightage @ 6%	16.02							
	Total	**283.02**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
3	KSRB 100-1 Loading and unloading ofstone aggregates / sand/ kanker/ Moorum /soil KSRRB M100-1 Placing tipper at loading with front end loader dumpting turning for return trip excluding time for haulged and return trip complete as per specification item No 17.1 page 141 and KSRB M.100.4.1 costof haulage excluding loading and unloading MORTH to a distance of 4.00 K.M (Item No 17.4 Page 141 (SR 2015-16)	cum					16		1344.00
	Basic Rate for loading and unloading	68.00	Vide Item No. 1				63.09	84.02	5301.00
	Basic Rate for Haulage upto 4.00 k.m =1.28 X 2.20 X 4	11.26							
		79.26							
	Area Weightage @ 6%	4.76							
	Total	84.02							
4	KSRB-4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 withOPC cement at 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @0.57cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications Specification No KBS 4.1.4.2, No. 12/ Item No. 4.3/ PWD SR 2015-16	Cum							
	columns		4	1.00	1.00	0.10	0.40		
	long wall		2	7.00	0.90	0.10	1.26		
	short wall		3	3.10	0.90	0.10	0.84		
	for CLF		1	25.00	0.90	0.10	2.25		
	inside		1	7.00	4.00	0.10	2.80		
	flatform		1	2.00	9.00	0.10	1.80		
							9.35		
	Deduction columns		4	1.00	0.90	0.10	0.36		
							8.99	4976.70	44726.00
	Basic Rate	4695.00							
	Area Weightage @ 6%	281.70							
	Total	4976.70							

Sl	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
5	KSRB 4.2.2 Providing and laying in position plain cement concrete of mix M20 withOPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @0.459cum with superplastesisre @ 3lls conforming to IS9103-1999Reffirmed 2008 machine mixed exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, return walls, walls(any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour HOM of machinery, curing, complete as per specifications Specification. No. KBS 4.1,4.6. No. KBS 4.1,4.6, No. 13/ Item No. 4.11/ PWD SR 2015-16	Cum							
	columns		4	0.30	0.30	5.50	1.98		
	footings		4	1.00	1.00	0.60	2.40		
	plinth beam		2	7.00	0.45	0.20	1.26		
			3	4.00	0.45	0.20	1.08		
	lintel		2	3.70	0.20	0.20	0.30		
			2	4.00	0.20	0.20	0.32		
	for chajja		2	0.60	0.60	0.075	0.05		
			1	4.00	0.60	0.075	0.18		
	for CLF		1	25.00	0.45	0.15	1.69		
	inside		1	7.00	4.00	0.05	1.40		
	flat form		1	2.00	9.00	0.10	1.80		
			1	3.00	1.50	0.23	1.04		
							13.49	6083.34	82079.00
	Basic Rate	5739.00							
	Area Weightage @ 6%	344.34							
	Total	**6083.34**							
6	KSRB 5.2.3 Providing and constructing granite / trap / basalt rubble stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5.1.13 Page No. 23/ Item No. 5.6/ PWD SR 2015-16	Cum							
	long walls		2	7.90	0.75	0.40	4.74		
	short wall		3	3.10	0.75	0.40	2.79		
			2	7.60	0.60	0.40	3.65		
	for CLF		3	3.40	0.60	0.40	2.45		
			1	25.00	0.75	0.40	7.50		
			1	25.00	0.60	0.40	6.00		
							27.13	4058.74	110097.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	3829.00							
	Area Weightage @ 6%	229.74							
	Total	4058.74							
7	KSRB 5.3-3 Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications KBS 5-1 13 Page No. 26/ Item No. 5.9/ PWD SR 2015-16	Cum							
	long walls		2	7.45	0.45	0.60	4.02		
	short wall		3	3.55	0.45	0.60	2.88		
	for CLF		1	25.00	0.45	0.40	4.50		
							11.40	4814.52	54878.00
	Basic Rate	4542.00							
	Area Weightage @ 6%	272.52							
	Total	4814.52							
8	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20 mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications Page No. 112/ Item No. 15.1 PWD SR 2015-16	sqm							
	long walls		2	7.45		0.600	8.94		
	short wall		3	3.55		0.600	6.39		
	for CLF		1	25.00		0.600	15.00		
							30.33	97.52	2958.00
	Basic Rate	92.00							
	Area Weightage @ 6%	5.52							
	Total	97.52							
9	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms, in depth, compacting each deposited layers by ramming after watering with lead upto 50m, and lift upto 1.5m, including cost of all labour complete as per specifications, specification No. KBS 2.9, No. 6/ Item No. 2.10/ PWD SR 2015-16	Cum							
			1	7.00	4.00	0.600	16.80		
							16.80	127.20	2137.00
	Basic Rate	120.00							
	Area Weightage @ 6%	7.20							
	Total	127.20							

Sl	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
10	KSRB 4-6.7 Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1 m in depth including cost of all materials, labour complete as per specifications Specification NO KBS 4 6 2 Page No 17/ Item No 4 34/ PWD SR 2015-16	sqm							
	for columns	4x4	16	0.45		6.000	43.20		
	plinth beam	2x2	4	7.00		0.200	5.60		
		3x2	6	4.00		0.200	4.80		
	lintel	2x2	4	3.70		0.200	2.96		
		2x2	4	4.00		0.200	3.20		
	for CLF	1x2	2	25.00		0.200	10.00		
							69.76	**265.00**	**18486.00**
	Basic Rate	250.00							
	Area Weightage @ 6%	15.00							
	Total	**265.00**							
11	KSRB 4-6 10 Providing and removing centering, shuttering, strutting, propping etc., for chajjas, corbels etc., including edges including cost of all materials, labour complete as per specifications Specification NO KBS 4 6 2 Page No 16/ Item No 4 37/ PWD SR 2015-16	sqm							
	for chajja		1	4.00		0.600	2.40		
			2	0.60		0.600	0.72		
							3.12	**278.78**	**870.00**
	Basic Rate	263.00							
	Area Weightage @ 6%	15.78							
	Total	**278.78**							
12	KSRB 5-14 Providing and constructing precast concrete solid blocks with compressive strength not les than 35 Kg/sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x20x20 cms conforming to I.S. 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications. Page No 25/ Item No 5 27/ PWD SR 2015-16	sqm							
	walls		2	3.70		4.00	29.60		
			1	4.00		4.00	16.00		
							45.60		
	deduction Ventilator		2	0.60		0.60	0.72		
							0.72		
	Basic Rate	943.00					**44.88**	**999.58**	**44861.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Area Weightage @ 6%	56.58							
	Total	**999.58**							
13	KSRB 4.9.2 providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications Specification No KBS 4.6.3 Page No. 17/ Item No. 4.46/ PWD SR 2015-16 Fe 500	Quintal		7.57					
	90kg/cum		0.900	**7.57**			6.81		
							6.81	**6851.31**	**46678.00**
	Basic Rate	6463.50							
	Area Weightage @ 6%	387.81							
	Total	**6851.31**							
14	KSRB 15.3.1 Providing 12mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever reuired smooth rendering. Providing and removing scaffolding, including cost of materials, labour. Curing complete as per specifications. Page No ~~122~~ 112/ Item No. 15.11/ PWD SR 2015-16	sqm							
	internal and external plastering	2x2	4	3.50		4.00	56.00		
			1	2.00		4.00	8.00		
							64.00		
	deduction Ventilator	2x2	4	0.60		0.60	1.44		
							1.44		
	Basic Rate	143.00					**62.56**	**151.58**	**9483.00**
	Area Weightage @ 6%	8.58							
	Total	**151.58**							
16	FIXTURES for doors and windows Page No XIV SR 2015-16								
	VENTILATORS Sl No 395,385,402,386								
	Hinges 5" heavyduty	Each	1	4			4	37.00	148
	bottom lock nail	Each	2	5			10	47.00	470
	MS Clamps	Each	2	4			8	38.00	304
	Brass screws 25mm	Each	10	5			50	2.10	105

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
17	Providing and fixing single shutter glass door of 12mm thick plain Toughened glass (Saint Gobain,Modi float).The door is fixed by using any approved make hardware fitting like patch fitting, pivot,Floor machine, locking arrangements and suitable SS door rails withFloral glass etching for 1/3 portion of door area etc complete. The rate includes cost of all materials, labour, hire of tools & machineries, and as per specification. Page No.311/ Item No. 39.5 / PWD SR 2015-16	sqm							
			1	4.00		3.50	14.00		
							14.00	**12084.00**	**169176.00**
	Basic Rate	11400.00							
	Area Weightage @ 6%	684.00							
	Total	**12084.00**							
18	KSRB 14.13.1.: Providing precast chequered mosaic tiles dark shade using ordinary grey cement for steps and flooring, with precast 20mm thick, using marble chips of approved colour 7 to 10 nominal size laid in floors, steps and landings on a bed of 12mm thick cement mortar 1:6, mix, jointed with neat cement slurry mix with pigment to match the shade of tiles curing, rubbing, polishing , oxalic acid wash, wax polish, including cost of materials, labour, HOM machinery complete as per specifications. Page No.102/ Item No. 14.28 PWD SR 2015-16	sqm							
			1	4.00		2.50	10.00		
							10.00	**982.62**	**9826.00**
	Basic Rate	927.00							
	Area Weightage @ 6%	55.62							
	Total	**982.62**							
19	Providing and laying flooring using pre polishing water cut/gang saw 19 mm thick Granite slab over existing cement concrete bed in CM 1:4 at 20mm thick (average) pointed with white cement/ colour pigment etc., complete. Page No. 104/ Item No. 14.47.2 / black granite width not less than 900 mm PWD SR 2015-16	sqm							
			2	4.00		0.60	4.80		
							4.80	**2364.86**	**11351.00**
	Basic Rate	2231.00							
	Area Weightage @ 6%	133.86							
	Total	**2364.86**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
20	Providing and fixing Special make glazed Vitrified tiles (Granomite finis) of approved make, quality and colour of sized 600x600x10mm thick fixed on existing flooring wit ha special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. Page No 104/ Item No 14.44 / PWD SR 2015-16	sqm							
			1	3.70		4.00	14.80		
							14.80	**1087.56**	**16096.00**
	Basic Rate	1026.00							
	Area Weightage @ 6%	61.56							
	Total	**1087.56**							
21	KSRB 15-17.2 Applying priming coat over new wood surface and / or wood based surface after brushing with wood primer pink paint including preparing the surface after thoroughly cleaning oil, grease, dirt, and foreign matter, sand papering and knotting ready mix paint including cost of materials, labour, complete as per specifications. Page No 114/ Item No 15.56 / PWD SR 2015-16	sqm							
	doors	1x2	2	4.00		4.00	32.00		
	window	2x2	4	0.60		0.60	1.44		
							33.44	**36.04**	**1205.00**
	Basic Rate	34.00							
	Area Weightage @ 6%	2.04							
	Total	**36.04**							
22	KSRB 15-17.6 Providing and applying painting two coats (excluding priming coat) on new wood surface and / or wood based surface with enamel paint to give an even shade, cleaning the surface of all dirt, dust and foreign matter, sand papering including cost of materials, labour, complete as per specifications. Page No 118 / Item No 15.60.1 / PWD SR 2015-16	Sqm							
		qty same as item no - 21					33.44		
							33.44	**85.86**	**2871.00**
	Basic Rate	81.00							
	Area Weightage @ 6%	4.86							
	Total	**85.86**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
23	KSRB 15.15.1: Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth cost of materials, labour, complete as per specifications with primer Page No.113/ Item No. 15.51.2 / PWD SR 2015-16	sqm							
		qty same as item no					33.44		
							33.44	**90.10**	**3013.00**
	Basic Rate	85.00							
	Area Weightage @ 6%	5.10							
	Total	**90.10**							
24	KSRB 15-16 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to given an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications with primer,page No.114 item No.15.53.2/PWD SR 2015-16								
		qty same as wall plastering					14.00		
							14.00	**83.74**	**1172.00**
	Basic Rate	79.00							
	Area Weightage @ 6%	4.74							
	Total	**83.74**							
25	Supplying and fixing M.S rectangular poles made out of 2 equal angles of 65x656 mm welded together and fixed in CC (1:2:4) with 2 NOS 16 mm dia, M.S hold fast rods each of length 25 cms, including cost of all materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead lifts and as per the directions of the Engineer in charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting (excluding cost of earthwork and concrete), No 255/ Item No. 37.2 PWD SR 2015-16	Rmt							
	CLF		12	2.00			24.00		
							24.00	**973.08**	**23354.00**
	Basic Rate	918.00							
	Area Weightage @ 6%	55.08							
	Total	**973.08**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
26	Providing and fixing M.S. Block pipe of 38 mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the two vertical poles (M.S rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the engineer in charge of work etc, complete including two coats of approved quality paint over one coat of shop paint, No. 255 Item No. 37.4 PWD SR 2015-16	Rmt							
	CLF		2	25.00			50.00		
							50.00	331.78	16589.00
	Basic Rate	313.00							
	Area Weightage @ 6%	18.78							
	Total	**331.78**							
27	Providing chain link fencing 50 mm size of 8 guage properly stretched between rectangular poles and fixed with suitable bolts & nuts, the free ends shall bed welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the engineer – in charge of work including two coats of approved quality paint over one coat of shop paint, No. 255/ Item No. 37.3 PWD SR 2015-16	Sqm							
	CLF		1	25.00		1.50	37.50		
							37.50	684.76	25679.00
	Basic Rate	646.00							
	Area Weightage @ 6%	38.76							
	Total	**684.76**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
28	Providing and installing of pre painted Galvolume iron Trpezoidal profiled sheet of approved make 1060mm width (1000mm cover width), 28-30 mm crest height with cest distance of 200 mm c/c with 2ribs at the center for stiffening , The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0·02 mm tolerance Zinc –Alu Alloy coating AZ 150 gsm as pe ASTM 1397/A755-550 mpa steel grade. 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling /self tapping screws of 25mm length,to be fixed over the existing purlins, rafters channel and trusses. No. 293/ Item No. 38.30 PWD SR 2015-16	Sqm							
			1	10.00		7.00	70.00		
	Basic Rate	770.00					70.00	816.20	57134.00
	Area Weightage @ 6%	46.20							
	Total	816.20							
30	Fabricating supplying and erecting M.S. TubulerTruss of span upto 10m bottom and top member is provided with 50x50x6mm double equale angles, welded back to back and in between top and bottom line, in ereas of mid section is provided with 50x50x6mm equal single angle for vertical and inclined members and at supporting ends 40x40x5mm single angle is provided all the members are weldeded toghter with 6mm gusset plate as per drawing. The enter truss is anchored in RCC column buy using 4Nos of M.S anchor bolts at eacth support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening , pacing in position of M.S angle and welding wherever necessary, and applying one of red oxide primer coat to all the members including cost of all materials, labour charges,and higher charges of mechineries for cutting welding, granding and erection equipments, with all lead and lift, transportation, etc, complete as per specification. Page No. 40/ I No. 7.29/ PWD SR 2015-16	kgs							
			8	50.00			400.00		
	Basic Rate	120.00					400.00	120.00	48000.00
	B) Electrification,wiring and lighting etc to RO Plant							**A) TOTAL**	**825887.00** 821930

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1 P.No-5 I.No-2.3	Point wiring using Copper wire with switch. Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2X1.5Sq.mm Cable confirming to the GTP without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block complete for each outlet. GROUP A KPWD ELectrica SR for 2014-15								
	2.3.1) Short point upto 3Mtr from tapping point to out let via switch box	Point	2				2.00	144.00	288.00
	2.3.2) Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch box	Point	2				2.00	215.00	430.00
	2.3.3) Long point above 6Mtr upto 10Mtr from tapping point to out let via switch box	Point	2				2.00	334.00	668.00
2 P.No-02 I.No-1.1	Open Conduit System Supplying heavy gauge PVC conduit pipe .....dia .....mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.1.1.1) 19/20mm dia 2mm thick	mtr	20				20.00	54.00	1080.00
3 P.No-6 I.No-2.5	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & confirming to GTP of GROUP -A 2.5.2) 1.5 sqmm	Mtr	50				50.00	18.60	930.00
	2.5.1) 1 sqmm.	Mtr	50				50.00	13.00	650.00
	2.5.3) 2.5 sqmm.	Mtr	50				50.00	24.90	1245.00
	2.5.4) 4 sqmm.	Mtr	100				100.00	36.30	3630.00
4 P.No-3 I.No-1.6	Supplying and flush mounting teak wooden box without front plank, made of not less than 12mm thick wood, after due groove cutting, Finishing with necessary cement plastering complete 1.6.3) 10"x7"x3" (254x178x76mm)	Each	2				2.00	87.00	174.00
	1.6.4) 8"x6"x3" (203x152x76mm)	Each	1				1.00	73.00	73.00
	1.6.1) 12"x12"x3" (300x300x76mm)	Each	1				1.00	116.00	116.00
5 P.No-17 I.No-3.9	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches, regulators etc., and fixing on existing wooden or metal box using N.F. screws.	Sqcm	1225				1225.00	0.25	306.25
6 P.No-18 I.No-3.8	Supplying and fixing/replacing of 6/16/32Amps electrical accessories on existing switch board. GROUP A								

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	3.15.1) 6Amps SP Switch	nos	1				1.00	35.00	35.00
	3.15.3) 6Amps 3 way 5 pin Socket	nos	1				1.00	53.00	53.00
	3.15.6) 6 Amps lamp holder	nos	3				3.00	48.00	144.00
	3.15.13) 16/6 Amps combined plug and socket with control switch	nos	4				4.00	268.00	1072.00
7 P.No 16 I.No-3.7	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293 GROUP B 3.7.18) 1000-1200Watts Dimmer	Each	1				1.00	447.00	447.00
8 P.No 54 I.No-6.16.1	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 6.16.1) 5-32Amps SP group A	Each	1				1.00	418.00	418.00
9 P.No 62 I.No-7.1	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of [illegible] mm dia	No	1				1.00	2727.00	2727.00
10 P.No 52 I.No-6.7	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 6.7.1) 16Amps	Each	1				1.00	120.00	120.00
11 P-20 4.6.7	Supply patty type fluorescent tube light fitting of 4'-36/40 watts fluorescent tube fitting, made out of M.S sheet and stove enameled with low loss open construction copper wound ferromagnetic ballast, starter, locking type brass contact holders mounted on double fold type sheet base fully wired for use on230 Volts A C Supply including 1No 4'-36/40 Watts fluorescent tube. a) Group 'A' KBND SR /Ele/ 2010-11	Each	5				5.00	340.00	1700.00
12 P.No-114 I.No-17.7	Fixing all types and all capacities of fluorescent / false ceiling / spot light / CFL / LED fittings indoor on the wall / ceiling / rafters / girders using 23/0.0076" twin twisted PVC insulated wires, required Nos of round blocks and clamps. 17.7.1) On wall / ceiling / Rafter / Girders	Each	5				5.00	98.00	490.00

Sl	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
13 65/1	SHORT POLES: (whereas clearance between Messenger wire and ground is inadequate) a) Supplying and fixing 40mm diat 2.90 thick GI pipe 1.8m long complete with atleast 2 GI pipe 1.8m, long complete with atleast 2 Nos of through bolts 12 mm dia with MS back plate 100x100x6mm dia with eye bolt fixed at top deadeninding messenger wire with masonary patch work etc., complete as per approved drawing (for single phase installations) PWD SR 2007-08 & BWSSB SR for 2014-15 P-545 item No. 1(a)	Each	1				1.00	~~577.15~~ 577.50	~~577.15~~ 577.50
14 65/5	INSULATED CABLE ON MESSENGER WIRE Using 2 single core wires for a single phase and 4 single core wires for 3 phase. Supplying and stringing PVC insulated and PVC sheathed 650/1100V class aluminium conductor of size supported by 3.15mm (10 SWG) GI messenger wire with two break insulators one at each end of the span with suspenders at intervals of 0.75m. Each suspender shall be of porcelain reel insulator of suitable core through which insulated wire passes(single core or twin core as the case may be) and this reel insulator shall be fixed to the messenger wire using 2mm (No.14SWG) GI wire suitably bent and twisted. Separate reely insulator shall be provided for each wire, the messenger wire shall be ded-ended on the clamp provided to the departmental pole wide item No.4 above.(Page No.56, item No.5 a)Single Phase using 2 Wire of 16 Sqmm BWSSB SR for 2014-15 P-545 item No. 5(a)	R mtr	55				55.00	93.50	5142.50
							B) TOTAL		22516.00 24956

C) 10000LPD R. O Plant Quotation

RAW WATER PUMP :	
Quantity	1 No.
Type	Centrifugal mono block
MOC & Make	UKL
Motor Rating	0.75 HP
PRESSURE SAND FILTER :	
Quantity	1 No.
Capacity	1000 LPH
MOC & Make of housing	UKL
MOC & Make of cartridge	UKL
Capacity	1000 LPH
MOC & Make of vessel	UKL
Diameter	400 mm
Type of Valve	Single - multiport
Media	Support bed + sand
MICRON CARTRIDGE FILTER :	
Quantity	1 set

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Filter Rating	5 microns							
	Size	20" long							
	ANTISCALANT DOSING PUMPS :								
	Quantity	1 No.							
	Type	Electro - magnetic							
	Capacity	1.5 LPH @ 4 Bar							
	Dosing Tank	HDPE - 50 ltr							
	HIGH PRESSURE PUMP :								
	Quantity	1 No.							
	Capacity	1700 LPH							
	Type of Pump	Vertical Multistage Centrifugal Pump							
	MOC	SS 304							
	Motor Rating	2 HP, 3 Phase							
	Maximum Pressure	12 kg / cm2							
	Make	UKL							
	RESERVE OSMOSIS SYSTEM :								
	Quantity	1 No.							
	Capacity	1000 LPH							
	Module Type								
	Membrane Specifications {Polyamide}								
	Make of Membrane	UKL							
	No. of Membranes								
	UV STERILISER								
	Max. Treatment Flow	1 m3/hr							
	No. of Lamps	1 No							
	Wattage	39W							
	Efficiency	99.99%							
	Material of construction	SS 304							
	PRODUCT WATER QUALITY :								
	Appearance	Crystal Clear							
	Abide by the ISO standards	Yes							
	S S Tank : 304 grade with 16 gauge 2000 Liters capacity								
	304 grade 10 gauge SS Pipe(with steam valve) 25 ft								
	COIN BOOTH DISPENSING UNIT								
	for 5 liters & 20ltrs separately								
	Raw Water Storage Tank	Function – For storage of raw water							
	Type/ MOC	Two/Three Layered PE tanks							
		Storage drinking / potable water. 5000liters capacity.							
	BBMP Approved Rate		1					946000.00	
	Approved copy Enclosed						**C) TOTAL**		946000.00

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	D) DRILLING OF BOREWELL								
1	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR)	Nos	1				1	1882.00	1882.00
	Basic Rate	1882.00							
	Total	1882.00							
2	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR)	Rmt							
	0.00 to 50.00 Mtr.		1	50.00			50.00	315.18	15759.00
	50.00 to 100.00 Mtr.		1	50.00			50.00	412.00	20600.00
	100.00 to 150.00 Mtr.		1	50.00			50.00	458.35	22917.50
	150.00 to 200.00 Mtr.		1	50.00			50.00	484.10	24205.00
	200.00 to 250.00 Mtr.		1	50.00			50.00	560.32	28016.00
	250.00 to 275.00 Mtr.		1	25.00			25.00	600.49	15012.25
	Basic Rate	306.00							
	3% area weightage	9.18							
	Total	315.18							

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
3	Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/1993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR)	Rmt							
			1	60.00			60.00	1325.00	79500.00
	Basic Rate	1325.00							
4	Providing and fixing 250mm dia PVC 6 kg/sqcm pressure pipe including jointing and labur charges for laying pipes and as per specification and directions. (BWSSB SR 13-14, P.No.45 I.no.1 of sl-no.11.)	Each							
			1	18.00			18.00	1100.00	19800.00
	Basic Rate	1100.00							
5	175 mm dia M.S. Casing cap (P.NO-III, I.NO-85, PRED 12-13 SR)	Each							
			1				1.00	100.00	100.00
	Basic Rate	100.00							
6	M.S. Casing pipe collars 'C' Class (P.NO-III, I.NO-86, PRED 12-13 SR)	Each							
			1	15.00			15.00	150.00	2250.00
	Basic Rate	150.00							
7	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz 380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15.000 HP 30 stage (P.NO-XXXXIII, I.NO-33, PWD SR 12-13) kirloscar pumps 15-16	set							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			1				1.00	70600.00	70600.00
	Basic Rate	70600.00							
8	Providing, GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings)b50mm dia GI pipe (SR 15-16 PWD Page No XVII code No 509, 0154)	Rmtr							
			1	200.00			200.00		
							200.00	321.00	64200.00
	Basic Rate	321.00							
9	Providing & fixing socket GI (heavy duty collar) (Pwd SR pg xxxviii) SR 2015-16	No							
			1	55.00			55.00	84.80	4664.00
	Basic Rate	84.80							
10	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS 8130 1984 and virgin grade PVC insulation and powder coating extructed PVC sheathed suitable for working voltage upto 1100 volts as per IS 694 1991 & confirming to GTP of GROUP A KPWD ELectrical SR 2014-15 Page No 12 Item no 2.10.3 3C × 4 Sq mm	Mtr							
			1	400.00			400.00	126.70	50680.00
	Basic Rate	126.70							
11	Supplying fully automatic star delta starter unit push button type with suitable wires 3 contactors one adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts 3 phase and wired after fixing to the existing wooden board for motor above 15 HP upto 25Hp KPWD electrical SR for 2014-15 P-44 Item No. 6.2.2	Each							
			1				1.00	8273.00	8273.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
12	Fabricating supplying and mounting MS Box made out SWG suitable for floor wall mounting fully weather proof with provislon for better heat dissipation provided with hinged front cover equipped with tamper proof locking arragments with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc complete. KPWD Electrical SR 2014-15 Page No 49 Item No 6.41.2	Sqmm	1	1100.00	20.00		22000.00		
	Basic Rate	0.33					**22000.00**	0.33	7260.00

Sl	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
13	roviding & Fixing of clamps set and borewell cap to the pump . MR	No's		market rate				MR	
			1				1.00	450.00	450.00
14	Supplying & delivery of brand new best make gate valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark (50mm Gate wheel Valve.) (PWD SR 15-16, P.NO.XXIV, Sl.no, 673)	No's							
			1	3.00			3.00	1600.00	4800.00
	Basic Rate	1600.00							
15	Supplying and delivery of brand new best make non return Valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark . 50mm non return Valve for distributer pipeline. 50mm dia (PWD SR 13-14, P.NO.XXIV, Sl.no, 659)	No's							
			1	3.00			3.00	1145.00	3435.00
	Basic Rate	1145.00							
16	Providing and fixing of 50mm GI bend to motor (PWD SR 15-16 P.NO.XXXVIII GI FITTINGS TABLE)	No's							
			1	3.00			3.00	219.00	657.00
	Basic Rate	219.00							
17	Providing and fixing of 50mm GI Nipple to motor (PWD SR 15-16 P.NO.XXXVIII GI FITTINGS TABLE)	No's							
			1	3.00			3.00	104.30	312.90
	Basic Rate	104.30							
18	Providing and fixing of 50mm GI union to the motor ((PWD SR 15-16 P.NO.XXXVIII GI FITTINGS ' TABLE)	No's							
			1	3.00			3.00	223.70	671.10
	Basic Rate	223.70							
20	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No - 558, I.No - 3, BWSSB SR 14-15	Per length							
			1	50.00			50.00	88.00	4400.00
	Basic Rate	88.00							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
21	Erection of combined panel board meter board with all necessary materials and labour including providing CC 1:3:6 foundation bed etc,. Complete for basement out door type (MR)	No's						MR	
			1	1.00			1.00	475.00	475.00
21/22	Supplying and fixing miniature circuit breakers existing MCB distribution boards using necessary fixing materials and C type curve indicator ON/OFF energy cross 3 with short circuit breaking capacity of 10 K and complete wiring as required confirming to IEC 60898 40.63 Amps D P Page No 47 Item no 6.16.4 KPWD Electrical SR 2014-15	Each							
			1	1.00			1.00	1093.00	1093.00
	Basic Rate	1093.00							
22/23	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) ~~(P.NO - 553, I.NO - 10 (d), BWSSB SR 13-14)~~ KPWD Electrical SR for 2014-15 page No. 62 7.6.4	Mtr						140.40	4773.60
			1	34.00			34.00	169.95	5778.30
	Basic Rate	165.00							
	3% area weightage	4.95							
	Total	169.95							
23/24	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete As per in soil (hard) CIVIL SR KSRB I2 P7 Itemo 7.9.2 Page No 61 KPWD SR 2014-15	Mtr							
			1	34.00			34.00	106.00	3604.00
	Basic Rate	106.00							
24/25	Supplying and fixing Class-A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole / wall drain crossing with necessary clamping arragments for UG cable of 1.1 KV Page No 62 Item no 7.12.1 40 mm	Mtr							
			1	3.00			3.00	345.00	1035.00
	Basic Rate	345.00							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
25 26	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia KPWD Electrical SR 2014-15 Page No 62 Item no 7.1	No's							
			1				1.00	2727.00	2727.00
	Basic Rate	2727.00							
26 27	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc,KPWD Electrical SR 2014-15 Page No 62 Item no 7.13.2	Each							
			1				1.00	280.00	280.00
	Basic Rate	280.00							
27 29	Providing and fixing Gun Metal Gate wheel valve confirming to IS specification of approved make as per direction including all lead and lift etc,. Complete. 50mm dia (P.NO - 103, I.NO - 13.79.6, PWD SR 15-16	No's							
			1	4.00			4.00	1526.40	6105.60
	Basic Rate	1440.00							
	6% area weightage	86.40							
	Total	**1526.40**							
29 30	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches. KPWD Electrical SR 2014-15 page No 44 Item No 6.6.6	No's							
			1				1.00	302.00	302.00
	Basic Rate	302.00							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
29 31	KSRB 2-1.1:Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications (P.NO - 5, I.NO - 2.1, PWD SR 15-16	Cum							
	for PVC pipe		1	75.00	0.60	0.90	40.50		
							40.50	283.02	11462.31
	Basic Rate	267.00							
	6% area weightage	16.02							
	Total	283.02							
32 30	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., Page No.12 item No.3.4.2 b PRED SR 2012-13 (b) & (a)	Rmtr							
	75 mm dia 6 KSC PVC pipe		1	25.00			25.00	157.00	3925.00
	63mm dia 6KSC		1	50.00			50.00	112.00	5600.00
31 33	Providing and installation at site of work 20mm GI pipes including cost of pipes and specials and labur incluidng lowering into trenches, laying ture to line, complete as per direction of Engineer in charge for public taps for motors/pipeline XVII PWD SR for 2015-16 Sl No 505	Mtr							
			1	30.00			30.00	137.00	4110.00
	Basic Rate	137.00							
32 34	laying and jointing GI pipes without earthwork including aligning to line and slope fixing collers elbows tees bends gland cocks and other fittings with cuts and threads whereevere necessary 20mm PRDED SR 2012-13 Item No 3.1.2	Mtr							
			1	14.00			14.00		
	Basic Rate	14.00					14.00	14.42	201.88
	3 area weightage	0.42							
	Total	14.42							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
33 35	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.NO - 6, I.NO - 2.11, PWD SR 15-16	cum							
							40.50	76.32	3090.96
	Basic Rate	72.00							
	6% area weightage	4.32							
	Total	76.32							
34									
36	Bescom Deposit charges	No's	1				1.00	15000.00	15000.00
35									
37	water quality testing charges	LS	1				1.00	1000.00	1000.00
									514755
								TOTAL (D)	516235.00
									2307641
								GRAND TOTAL A+B+C+D	2310638.00
36	KRIDL Charges 8%							184611	184851.04
38	Miscelaneous and rounding off.							7748	4510.96
								TOTAL	2500000.00
	(Rupees Twenty five Lakhs Only)								

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.

2 The Estimate is prepared as per the PRED SR 2015-16and PW,P & IWTD SR 2013-14 and BWSSB Electrical SR 2013-14

3 The provisions were made in this estimate are necessary and adequate.

4 This works come under B.B.M.P. limits.

Ramanjeeraiah
Assistant Engineer

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

Executive Engineer
Yelahanka Division
Bangalore-64

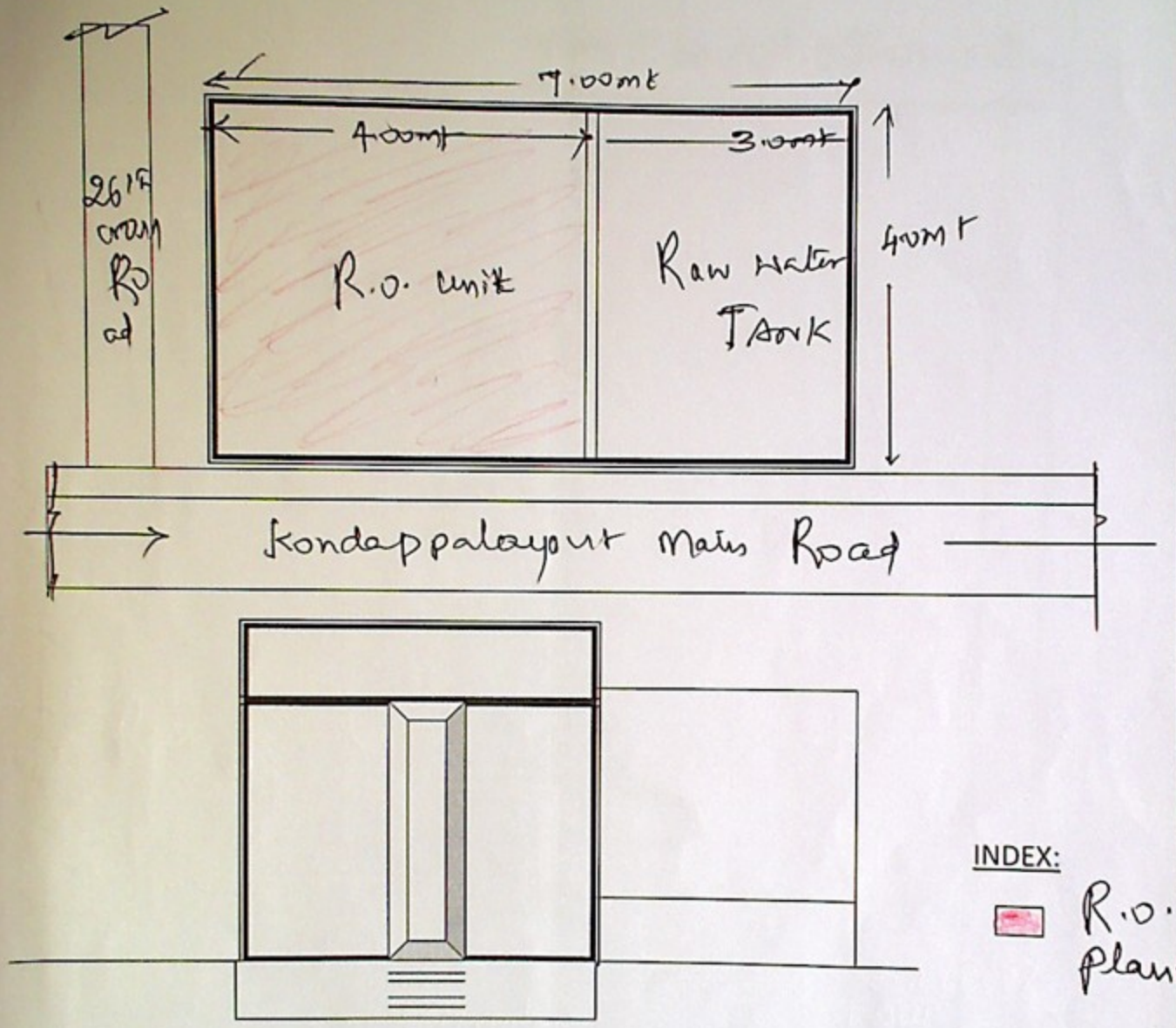
Technical Sanction
Accorded For 2500000/-
Head of A/C....2415....
CER NO :....129..... Dt:..10-03-16

TA CE (YNK)

Administrative Approval
Accorded For 2500000/-
Head of A/C....2415....
CER NO :....140..... Dt:..10-03-16

TA CE (YNK)

NAME OF WORK : Construction of RO Plant and providing water supply in ward No- 02 of yelahanka Sub division.



INDEX:

R.O. Plant

A.E.

A.E.E.

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore